



# **The Cuban Agroecology Movement:**

## **Are There Lessons for Massachusetts' Urban Farmers?**

**4th Annual Massachusetts Urban Farming Conference**  
**March 12, 2016**  
**Northeastern University**  
**Boston, Massachusetts**

**Greg Watson**  
**Cuba-U.S. Agroecology Network**



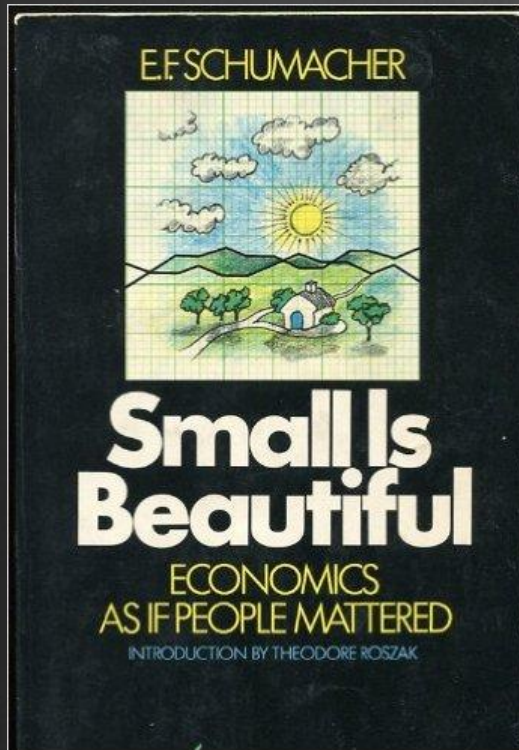
# Cuban Sustainable Food Systems Delegation



“This delegation seeks to share experiences in the development of sustainable food systems in Cuba and the U.S.”

October 27 – November 2, 2014

# Schumacher Center For A New Economics



Originally published: 1973

To educate the public about an economics that supports both people and the planet. We believe that a fair and sustainable economy is possible and that citizens working for the common interest can build systems to achieve it. We recognize that the environmental and equity crises we now face have their roots in the current economic system.



Conform or Transform?



# Cuba's Pre-Revolutionary Agriculture



## Cuba's Pre-Revolutionary Agriculture

Two major influences:

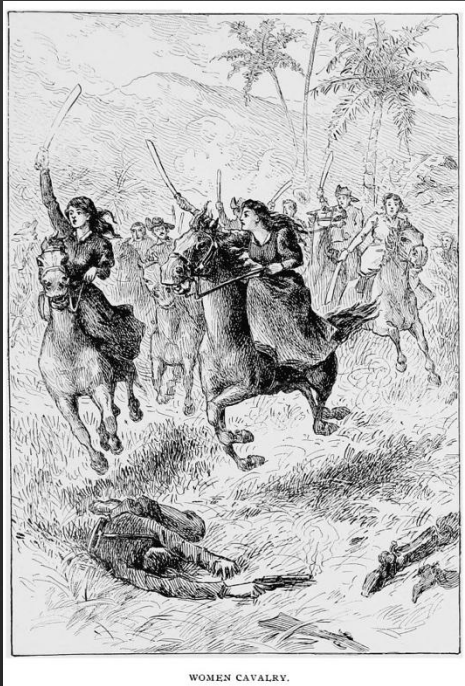
- Colonial Legacy
- Arrival of U.S. Capital

Centuries of Spanish colonial rule until the Cuban War of Independence.

U.S. took credit for winning the war for Cuba and replaced Spain as its “master”.

Tobacco and sugar cane plantations together with livestock production mostly for export to the U.S. devastated forests.

# Cuban War of Independence



*But do you know the real crime of Cuba? For nearly four centuries we were bowed under the iron rule of Spain. For nearly a century we fought to throw off that yoke. Not a spot of soil in Cuba is not drenched with the blood of patriots and martyrs.*

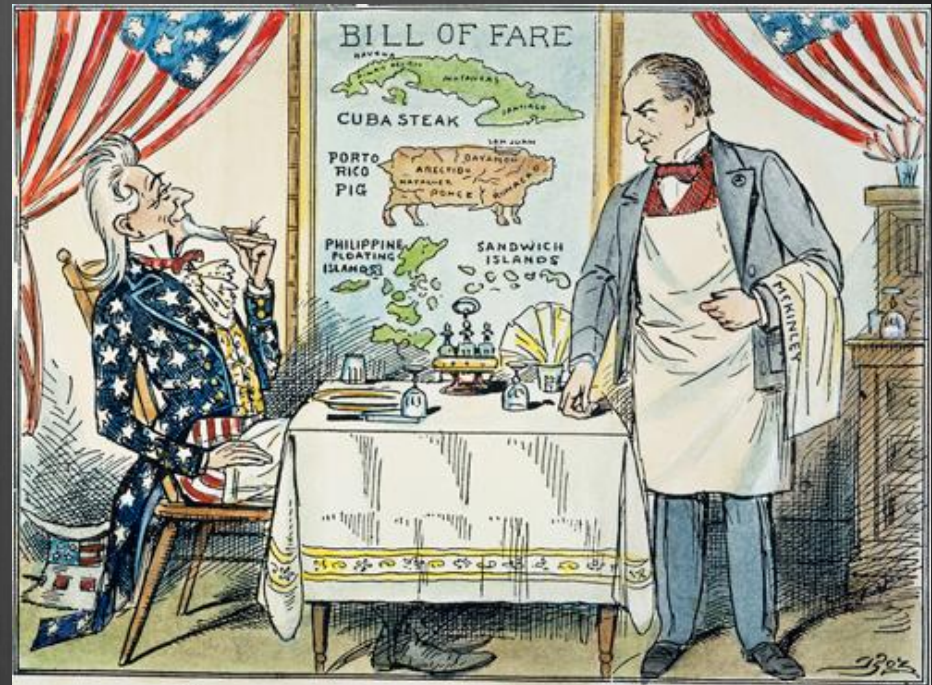
*Then came America... You said to free us . . . all you did was snatch victory from our grasp . . . Free Cuba? . . . Ha! . . . We are bound and gagged, hand and soul we are bound. . . We are bound by your dollars, by your bankers, by your politicians, by your Platt Amendment, by your greedy little politicians who pose as statesmen . . . Freedom? Our government, our President, is but a puppet of your dirty dollars . . .*

*“And that is the crime of Cuba, my friend. For all the blood and sacrifice of our people, of your people, we merely changed masters . . . We are exiles in our own land. . . That is the crime of Cuba.”*

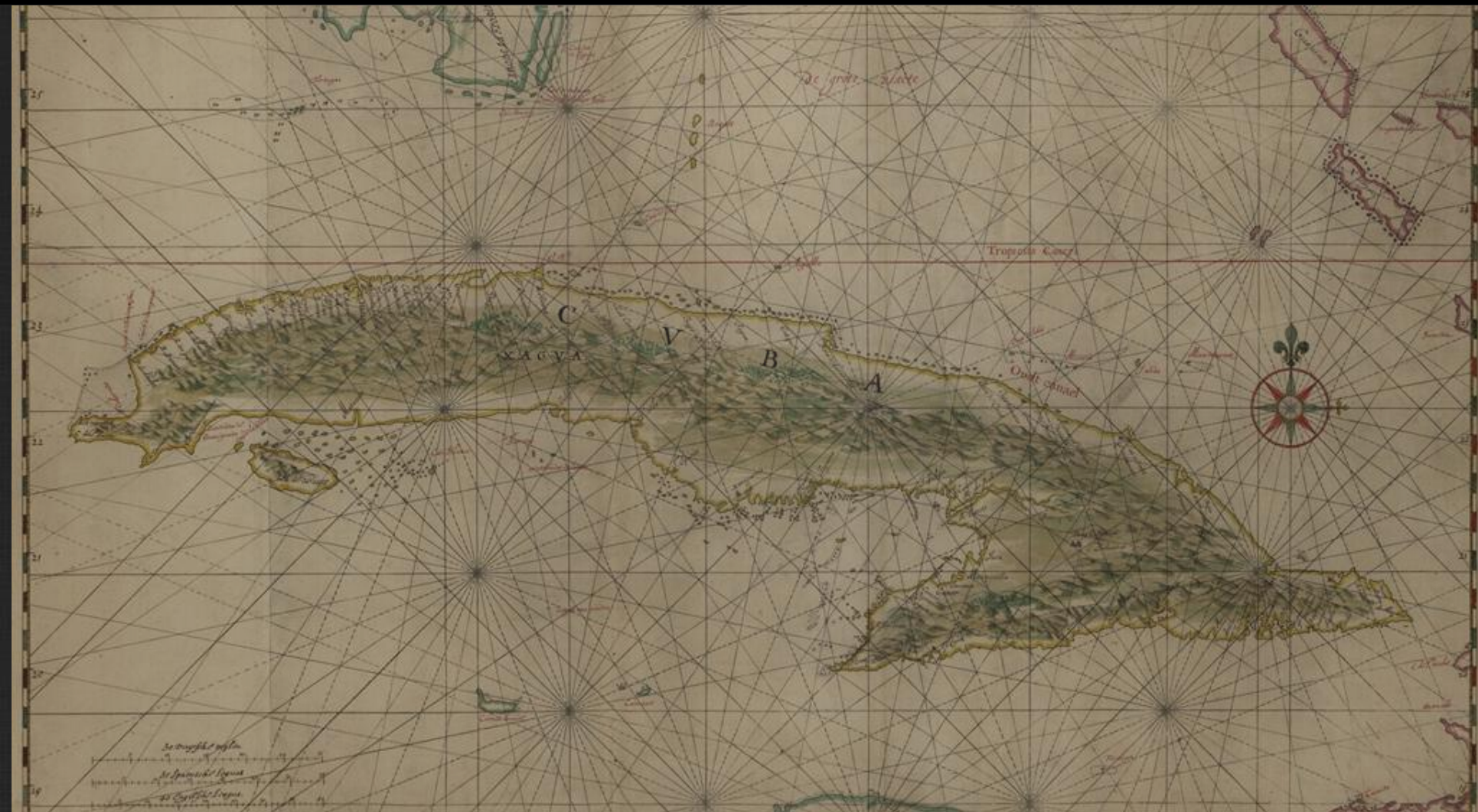


# Platt Amendment

The Platt Amendment's conditions prohibited the Cuban Government from entering into any international treaty that would compromise Cuban independence or allow foreign powers to use the island for military purposes. The United States also reserved the right to intervene in Cuban affairs in order to defend Cuban independence and to maintain "a government adequate for the protection of life, property, and individual liberty."

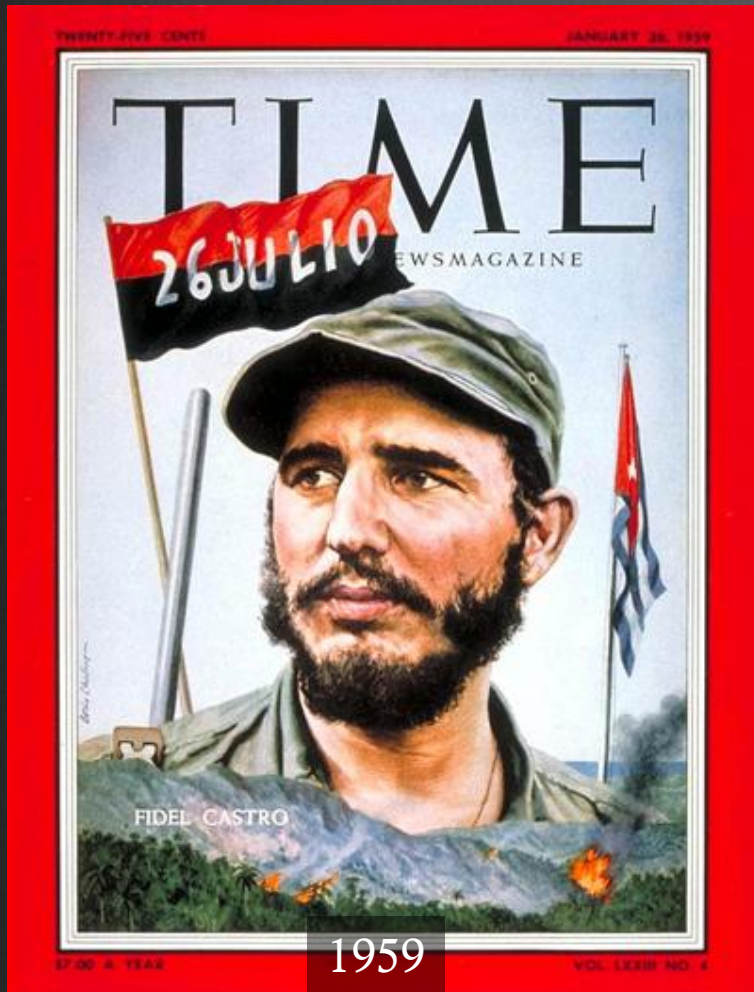


# La lucha





# Revolution



*“... It was the intentional effect of the Revolutionary Government to underline the importance of agricultural reform and development when it designated Agrarian Reform as the revolution’s “basic law.”*



# Cuban Literacy Campaign

The Cuban Literacy Campaign was a year-long effort to abolish illiteracy in Cuba after the Cuban Revolution. It began on January 1 and ended on December 22, 1961, becoming the world's most ambitious and organized literacy campaign.



"Support Literacy, Support Your Country!"

# Evolution of Current Relationship



Expropriation of Land and Property



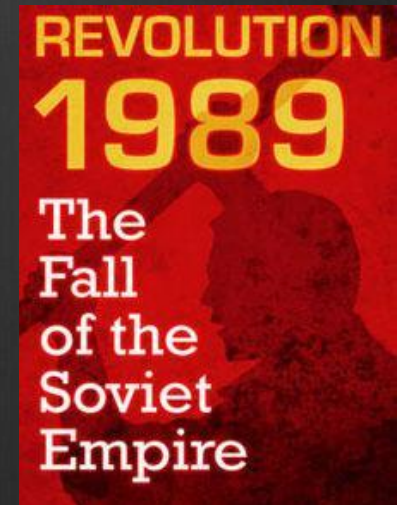
U.S. Embargo



Missile Crisis



Arms Blockade



Soviet Collapse



# Cuba's Food Crisis



- Collapse of Soviet Bloc in 1991 created an economic crisis in Cuba
- Loss of 60% of the country's GDP
- Loss of its primary source of petroleum
- Decreases in food production:
  - Tubers -96%
  - Vegetables -64%
  - Fruits -73%
  - Rice -68%
  - Beans -62%
  - Cow's Milk -53%
  - Beef -48%
  - Pork -52%

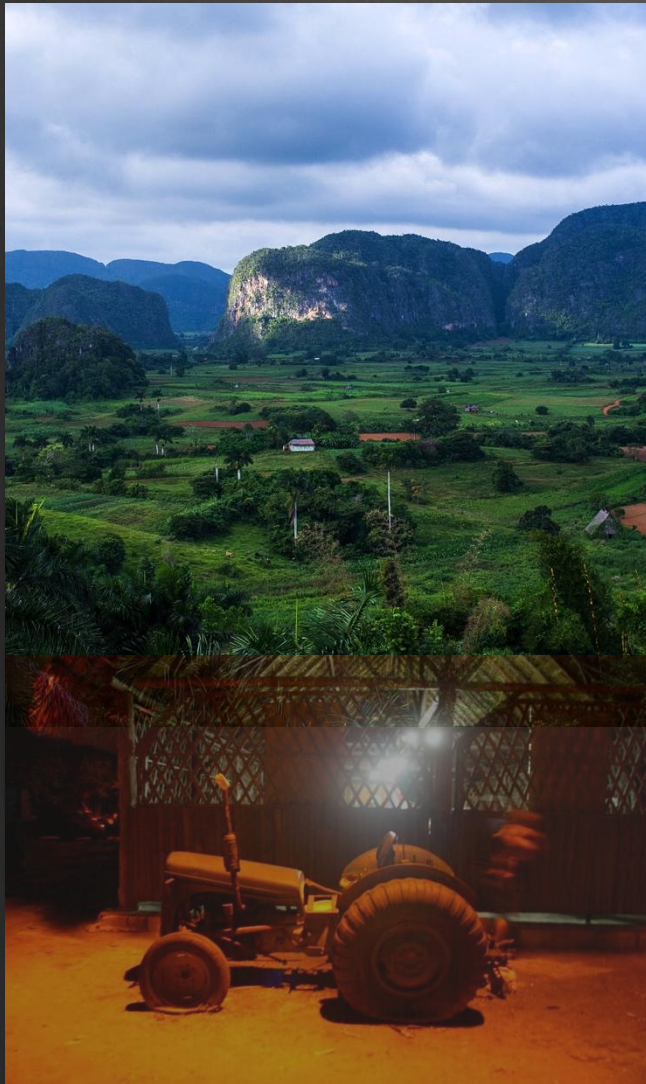
# Special Period in Time of Peace



- The average Cuban lost 15 to 20 pounds in the immediate aftermath of the collapse of the Soviet Bloc.
- The population was facing mass starvation.
- The government challenged farmers with finding ways of growing food without chemical fertilizers and pesticides.



# Aftermath of the “Green Revolution”



- The average state farm was between 32,000 and 76,000 acres
- 50% of Cuba's agricultural land was devoted to coffee, tobacco or sugarcane
- Cuban farmers were using double the amount of chemical fertilizers as U.S. farmers
- ~70% of Cuba's 6.6 m hectares of agricultural land suffered from some level of degradation
- 45%-60% of Cuban soils deficient in organic matter
- 48% of the soils suffered from erosion



# Agroecology Born of Necessity

## **"CRISIS FORCES CUBA TO CONSERVE ...**

In an attempt to ride out the difficult times, the Government is becoming increasingly "green"..."

Kaufman, 1993

## **"The greening of the revolution: Cuba's experiment with organic agriculture."**

Rosset & Benjamin, 1994

## **"Cuba Goes Organic! ...**

Pushed by the loss of imported pesticides and fertilisers and pulled by a growing awareness of environmental damage caused by intensive agricultural techniques; the Cuban government looked to sustainable, organic methods of cultivation to resuscitate and develop domestic food production."

Weaver et al, 1997

## **"Food Security and Local Production of Biopesticides in Cuba.**

Cuba has embarked on an unprecedented national transition from high-external input to low-input and organic agriculture ..."

Rosset & Moore, 1997

## **"A revolution in Urban Agriculture ...**

Cubans have combined the revival of traditional farming systems with the development of high-tech methods."

Ritchie, 1998

## **"CUBA'S ORGANIC REVOLUTION.**

Organic agriculture has been adopted as the official government strategy for all new agriculture in Cuba ..."

The Pesticides Trust, 1998

## **"Fidel's sustainable farmers."**

Economist, 1999

## **"Cuba: towards a national organic regime?**

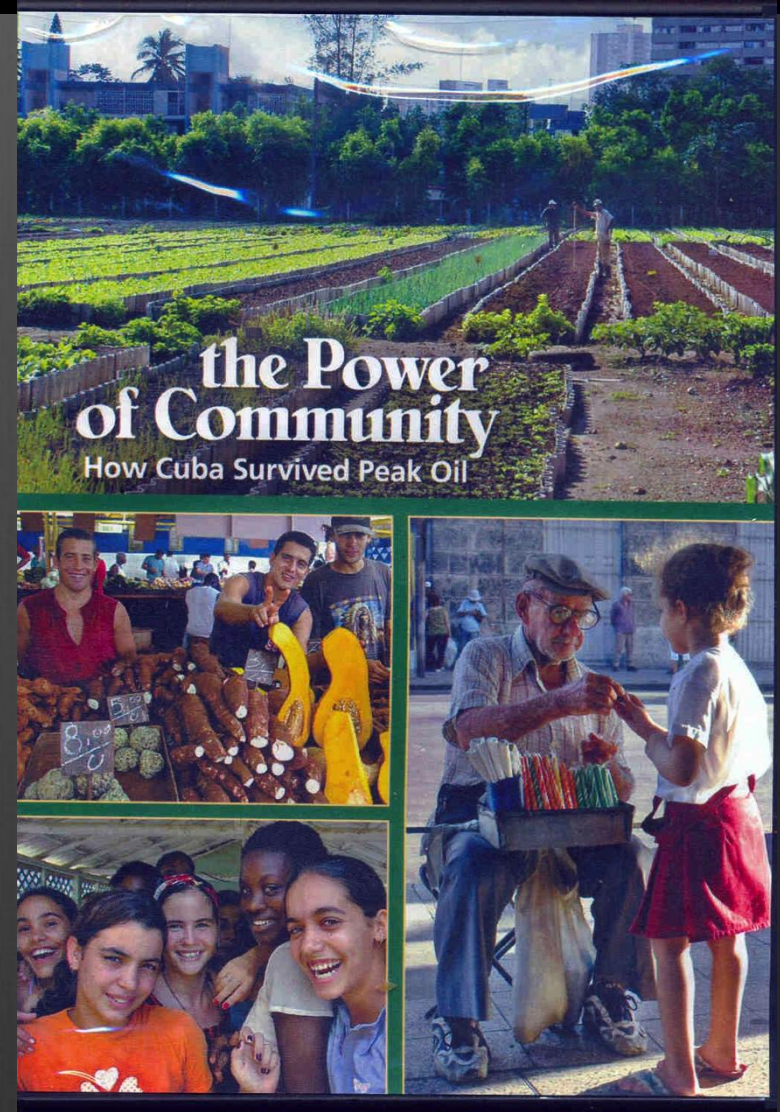
Today, 65% of Cuba's rice and 50% of its fresh vegetables are produced organically."

Parrott & Marsden, 2002

## **"An Organic Coup in Cuba?**

Castro says organic is working."

Simon, 1997





# The Science



Polyculture  
Mulch  
Manure  
Nitrogen-Fixing Plants  
Intensive Planting  
Successional Planting  
Companion Planting  
Raised Beds  
Vermiculture  
Permaculture  
Integrated Pest  
Management

# The Organization



- Land Redistribution
- Family Farms
- Urban Agriculture
- Farmer-to-Farmer
- Gender Equality
- Cooperatives
- Resource Efficiency

Could it have happened without the Literacy Campaign?



# The Future of Cuba's Urban Agriculture



Urban Farms provide the residents of Havana with 60% to 70% of their vegetables and fruits.



Will plans to redevelop Havana's crumbling Infrastructure include urban agriculture?



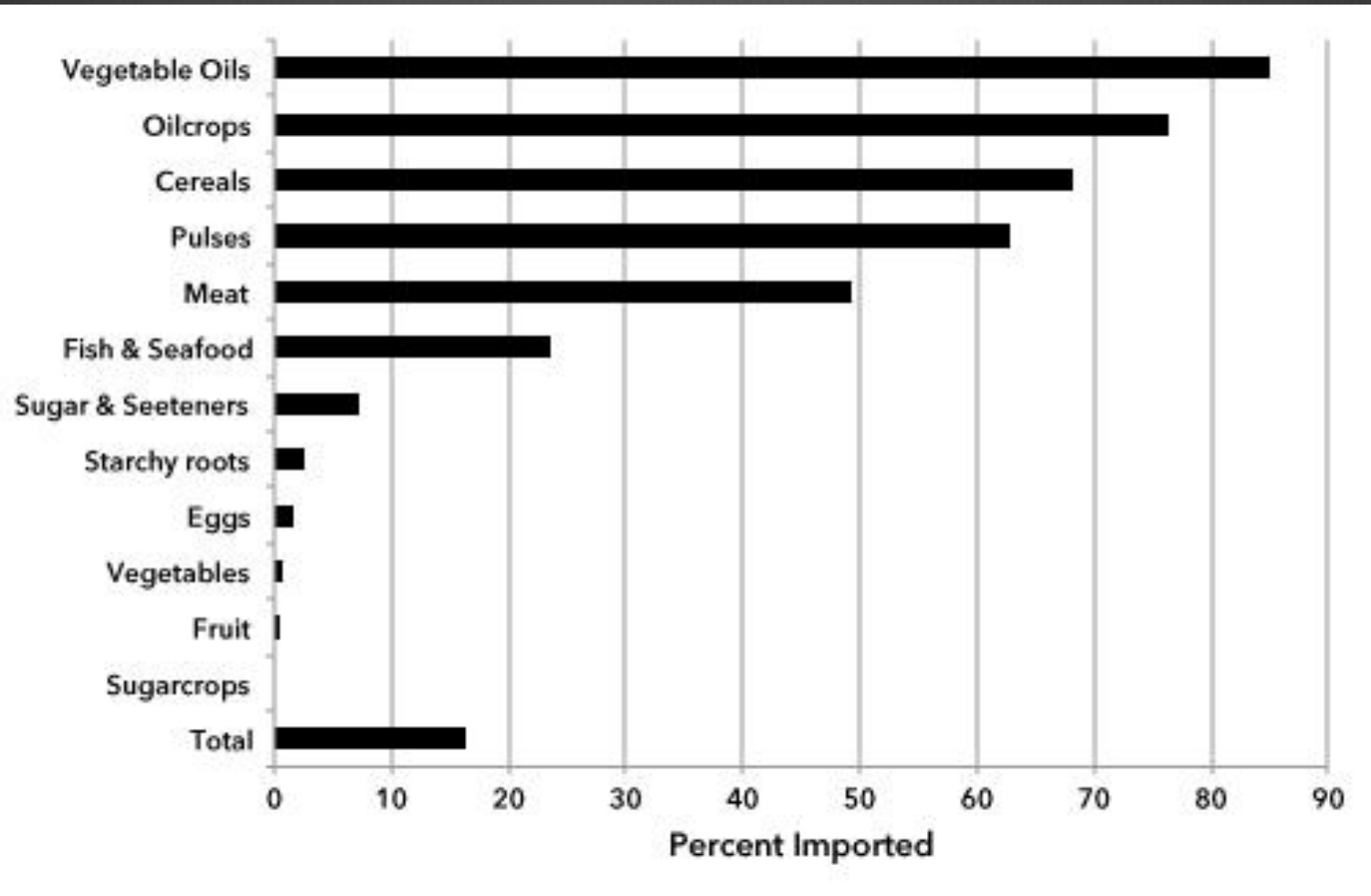
# Strength of Small Farms

- 11 million inhabitants
- 6.6 million hectares (16 million acres) of cultivable land
- 100,000 peasant farms on 2.5 million acres (25% of the agricultural land)
- 110,000 families have joined Cuban National Assoc. of Small Farmers
- Provide 65% of the nation's fresh vegetables and fruits
- 383,000 urban farms on 123,000 acres supply over 70% of fresh vegetables to cities like Havana
- ½ of Cuba's agricultural land uncultivated.





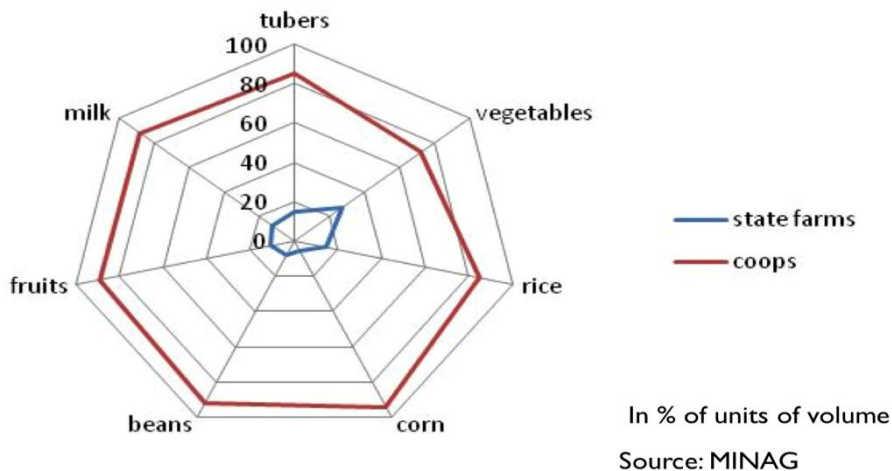
# Snapshot of Cuban Food Supply



Source: Calculated from FAO Commodity Balances, Cuba, 2003

# Cooperatives

## Current situation of coops in Cuba Production vs. state farms (2012)



Agricultural coops, which are responsible for 70 percent of the country's farmed land, are a key part of the state's subsidized food system.

Three types of co-ops:

**Basic Units for Agricultural Production (UBPC's)** are state-owned worker cooperatives; in **Agricultural Production Co-ops (CPAs)** members contribute land and equipment and work together collectively; **Credit and Service Cooperatives (CCSs)** consist of individual private farms that join forces to leverage credit and services.



# Organize

"I began revolution with 82 men. If I had to do it again, I do it with 10 or 15 and absolute faith."



'Those who love peace must learn to organize as effectively as those who love war.'



# Farmer-to-Farmer



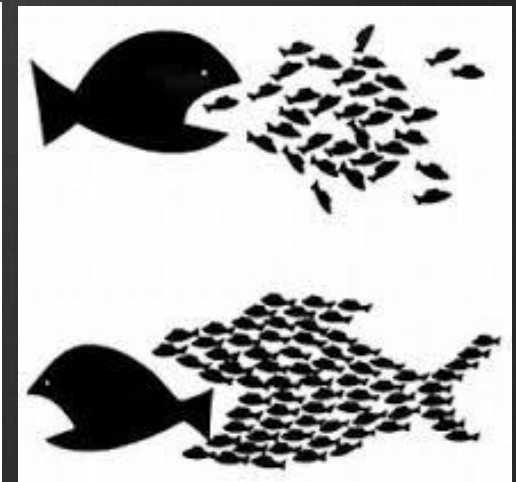
*"The entity that pays for Extension determines its agenda."*

Secretary of Training and Extension

Cuban Association of Agricultural and Forestry Technicians



# Transform the Economy



# Charting A New Course



We are separated by 90 miles of water, but are brought together through shared relationships and the desire to promote a democratic, prosperous, and stable Cuba. President Obama is taking action to cut loose the anchor of failed policies of the past, and to chart a new course in U.S. relations with Cuba.

December 2014



# Agribusiness Response



**U.S. Agriculture Coalition for Cuba**

*We strive to turn Cuba from an enemy to an ally within our lifetime by building trade relations with an honest appraisal of the past, and a fresh look to the future.*

January 2015



# A Sustainable Response



## Cuba-U.S. Agroecology Network

Connecting sustainable agriculture stakeholders in the United States with their counterparts in Cuba for the purpose of exchanging information and providing mutual support in their pursuits of agroecological farming practices





# Lessons for Massachusetts?



Invest in human capital. Cubans not only developed their agroecology system without access to petroleum, they also lacked what most would consider adequate financial resources. Their agroecology system was fueled by the wisdom and energy of one another.

Community organizing, social networking, farmer-to-farmer education, cooperation and collaboration generates synergy that builds capacity and optimizes social capital.

Distributed leadership strengthens networks through by encouraging interdependence, thereby enhancing trust, resilience, and sustainability.

When social goals seem incompatible with the existing economic system, don't assume the goals are unrealistic. Mobilize people to design an economic system/framework consistent with community-supported goals.

# Think Locally Act Globally



Sharing the Massachusetts farm map with member of Cuban Ministry of Foreign Affairs in 2014



That same official at the negotiating table to discuss restoring diplomatic relations between Cuba and the U.S. – no doubt singing the praises of “Massachusetts Grown and Fresher”.



Gracias!



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